**Department of Energy**
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P. O. Box 538705
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Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V, SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0149-00

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Ms. Val Orr
Division of Drinking and Ground Waters - UIC Unit
P.O. Box 1049
1800 Watermark Drive
Columbus, Ohio 43216-1049

Dear Mr. Saric, Mr. Schneider, and Ms. Orr:

**RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE JUNE 1999 MONTHLY OPERATING REPORT FOR THE RE-INJECTION DEMONSTRATION**

This correspondence submits the subject responses.

If you have any questions regarding this submittal, please contact Kathleen Nickel at (513) 648-3166.

Sincerely,

Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Nickel

Enclosure

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cc w/enclosure:
G. Jablonowski, USEPA-V, SRF-5J
T. Schneider, OEPA – Dayton (three copies of enclosure)
F. Bell, ATSDR
M. Schupe, HSI GeoTrans
R. Vandegrift, ODH
F. Barker, Tetra Tech
D. Brettschneider, FDF, MS52-5
K. Broberg, FDF, MS52-5
D. Carr, FDF, MS52-2
W. Hertel, FDF, MS52-5
R. White, FDF, MS52-5
AR Coordinator, FDF/78

cc w/o enclosure:
N. Hallein, EM-42/CLOV
A. Tanner, OH/FEMP
T. Hagen, FDF/65-2
J. Harmon, FDF/90
R. Heck, FDF/2
S. Hinnefeld, FDF/31
T. Walsh, FDF/65-2
ECDC, FDF/52-7

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# RESPONSE TO OEPA COMMENT ON THE JUNE MONTHLY OPERATING REPORT RE-INJECTION DEMONSTRATION

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO

OCTOBER 1999

U.S. DEPARTMENT OF ENERGY
FERNALD AREA OFFICE

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# RESPONSE TO OEPA COMMENT ON THE JUNE MONTHLY OPERATING REPORT RE-INJECTION DEMONSTRATION

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Commenting Organization: OEPA Commentor: Schneider
Section#: N/A Pg.#: N/A Line#: Code: C
Original Comment# 1

Comment: The June 1999 Operating Report for the Re-Injection Demonstration indicates that the quality of the treated water being injected is beginning to slowly deteriorate. Concentrations of both uranium bis(2-ethylhexyl)phthalate (DOP) are higher in June than in any previous month. We agree with the text which states the DOP is a common lab contaminant. Since DOP was also found in the blank we expect that the July samples will be found to be clean.

The uranium concentration of 10.3 micrograms per liter ($\mu$g/L) is more problematic. This level of uranium was higher than any that was previously measured in injected, treated groundwater and should have served as a cautionary warning that bigger problems were on the horizon. By August samples of the re-injected water exceeded the groundwater FRL. We agree with the increased systems sampling and monitoring as out-lined in the path-forward on re-injection which was transmitted with the weekly fax. This strategy along with the work being done on resin regeneration are appropriate strategies. However the re-injection project can not be allowed to discharge water above the FRL for any constituent.

Response: This comment discusses several issues:

1. The cause of the June FRL exceedance for bis(2-ethylhexyl)phthalate.
2. The high uranium concentration (10.3 mg/L) measured in the June injectate grab sample should have served as a cautionary warning that bigger problems were on the horizon.
3. OEPA agreement with DOE's increased systems sampling and monitoring strategy that was outlined in a weekly fax, which was transmitted to the EPA
4. The re-injection project can not be allowed to use water above the FRL for any constituent.

Response to each item is provided below:

1. The concentration of bis(2-ethylhexyl)phthalate in the monthly injectate grab sample for July was once again back down below the groundwater FRL concentration. The June FRL exceedance for bis(2-ethylhexyl)phthalate is being attributed to laboratory contamination.

2. The high uranium concentration measured in the monthly injectate grab sample for June served to reinforce the uranium concentration measurements collected from the daily process control samples. The process control data collected in June did serve as a cautionary warning that bigger problems could be on the horizon. The Operations and Maintenance Master Plan prescribes steps to take when the concentration of uranium in the injectate reaches 10 $\mu$g/L. Back in June, the level exceeded 10 and preparations for conducting the regeneration of the treatment resin were initiated. Because there was no requirement in the

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OMMP to notify the OEPA, notification to the OEPA that regeneration preparations were underway was not made. As DOE has subsequently discussed with OEPA, the OMMP will be revised so that EPA notification will be made in the future regarding the water quality of the injectate, based on the daily process control samples. For the immediate future DOE will continue to collect and report the monthly grab sample concentrations. However, the lag time between collection of the sample and when the results are received back from the lab dictates the role of this sample to one of historical documentation.

3 & 4 It appears that progress is being made in reaching a path forward that is acceptable to both EPA and DOE concerning increased systems sampling and monitoring. DOE understands that the re-injection project can not use water above the FRL for any constituent. DOE will continue to work with EPA on this issue, and continue to use the events pertaining to injectate sampling, as a "lessons learned" for the type and timing of communications OEPA expects to receive in the future on injectate water quality.

ACTION: As stated in response.

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